

## 《会長要請シンポジウム》

**Radiation Protection -How much do we really need?**

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The level of risk associated with radiation has an effect on all aspects of nuclear medicine including the building design of the department, the number of staff required to provide the service safely and the diagnostic accuracy of the images. It is therefore essential that this level be based on scientific reasoning coming from the most up to date radiological epidemiology rather than arbitrary, perhaps bureaucratic decisions. It is easy (and tempting on the grounds of prudence) to set too low a required level on, for example, radioactive contamination and waste without thinking through the consequences on working practices, costs and efficiency (and ultimately staff, public and patient welfare). Realistic and justifiable risk analyses must therefore be carried out.

The doses resulting from nuclear medicine research on healthy subjects of all ages and from health screening at diagnostic levels should also be looked at carefully and must be justified. In addition, the public and the patient's view of the hazards of radiation is an important issue and has to be addressed. These principles will be illustrated by practical examples including provision of PET services, design of nuclear medicine imaging departments, and the handling of radioactive waste and contamination.

The organisation and the legal basis of nuclear medicine radiation protection in the UK and US will also be reviewed and the role of the nuclear medicine fraternity in having an input into and potentially influencing official policy will be discussed.